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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,834	12/27/2001	Brett W. Murdock	1280.SC11318TH	9616
34814	7590	10/27/2003	EXAMINER	
TOLER & LARSON & ABEL, L.L.P. MD: 1280 PO BOX 29567 AUSTIN, TX 78755-9567			INOA, MIDYS	
			ART UNIT	PAPER NUMBER
			2188	

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/034,834

Applicant(s)

MURDOCK ET AL.

Examiner

Midys Inoa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-21 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings filed on April 15<sup>th</sup>, 2002 have been accepted by the examiner.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5-6, 15, and 17, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 5, when read in context, it is not understood what is meant by the phrase "a device external a device that includes the first output".

Claim 6 is rejected as having the same deficiencies as the claim it depends from.

Regarding Claim 15, when read in context, it is not understood what is meant by the process of a "first/second/third output node to provide one of an address data for an address location... and a data lane enable signal based upon a mode of operation".

Regarding Claim 17, when read in context, it is not clear what the function of a "multiplexor having a control input coupled to the output of the first register, a first data input coupled to the address control pin, a second data input coupled to the first data lane enable, and an output coupled to the output pin" is.

*Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4, 8-10, 16, 18-19, 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang (2003/0005247 A1).

Regarding Claims 1, 10, 16, 19, and 21, Chang teaches a memory access system in which a first mode of operation is used to access a first addressing range (“first portion of memory storage location”) and a second mode of operation is used to access a second addressing range (“second portion of memory storage location”). It is understood that “data lane” enable information is simply any signal that can be used to indicate what portion of data is to be accessed. Therefore, any signal being used by the system of Chang to access the various addressing ranges can in fact be a data lane signal (See page 4, claim 1); in addition, it is understood that memory address bits are used in the facilitation of access to a particular memory location.

Regarding Claims 2-4, when accessing a memory it is possible to access memories of different widths. Since Chang teaches the accessing of “addressing ranges” which are being accessed independent in different accessing modes, it is understood that the system could be modified so that these addressing ranges could be represented by independent memories, which

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could be byte wide or word wide. Additionally, since a word is always bigger than a byte (which is 8 bits) it is understood that a word wide memory has more than 8 bits associated with it.

Regarding Claims 8-9, 18, Chang teaches determining the mode of operation when the system realizes which address range needs to be accessed. If the system discovers that the first address range needs to be accessed, it determines that the first mode of operation needs to be in place. The same goes for the scenario when the second address range needs to be accessed. Additionally, the operation which requests the access to one address over another essentially performs as a chip select for the addressing range to be accessed ("a specific chip select", see Page 4, claim 1).

### *Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11-14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (2003/0005247 A1).

Regarding Claim 11, Chang teaches a memory access system in which a first mode of operation is used to access a first addressing range ("...bits of first address and lane enable...") and a second mode of operation is used to access a second addressing range ("...bits of second address and two lane enables..."). It is understood that "data lane" enable information is simply any signal that can be used to indicate what portion of data is to be accessed. Therefore, any

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signal being used by the system of Chang to access the various addressing ranges can in fact be a data lane signal (See page 4, claim 1); in addition, it is understood that memory address bits are used in the facilitation of access to a particular memory location. Chang does not teach a third mode of operation in which four lane enables are provided and therefore, a third addressing range can be accessed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to extend the system on Chang to include a third mode of operation in order to allow for the access of a third addressing range. This expanded capability would make the system more versatile as it can manage a greater number of memory areas, thus increasing its capacity.

Regarding Claims 12 and 13, when accessing a memory, it is possible for a system to access memories in locations remote and near, as long as access paths are present. Since Chang teaches the accessing of "addressing ranges" which are being accessed independent in different accessing modes, it is understood that the system could be modified so that these addressing ranges could be represented by independent memories, which could be of the internal type within the main system, or of the external type outside of the main system.

Regarding Claim 14, Chang teaches determining the mode of operation when the system realizes which address range needs to be accessed. If the system discovers that the first address range needs to be accessed, it determines that the first mode of operation needs to be in place. The same goes for the scenario when the second address range needs to be accessed. Additionally, the operation which requests the access to one address over another essentially performs as a chip select for the addressing range to be accessed ("a specific chip select", see Page 4, claim 1).

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Regarding Claim 20, Chang teaches the invention as set forth by claim 19 above. Chang does not teach the use of a third mode of operation to access a third memory device, which is internal to the system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to extend the system on Chang to include a third mode of operation in order to allow for the access of a third addressing range. This expanded capability would make the system more versatile as it can manage a greater number of memory areas, thus increasing its capacity. Additionally, it is possible for an access system to access memories in locations remote and near, as long as access paths are present. Since Chang teaches the accessing of "addressing ranges" which are being accessed independent in different accessing modes, it is understood that the system could be modified so that these addressing ranges could be represented by independent memories, which could be of the internal type within the main system, or of the external type outside of the main system.

***Allowable Subject Matter***

8. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Prior Art of Record does not teach an address bit used to extend an address range when a memory having a width less than a word is being accessed.

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*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Midys Inoa whose telephone number is (703) 305-7850. The examiner can normally be reached on M-F 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (703) 306-2903. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

*Midys Inoa*  
Midys Inoa  
Examiner  
Art Unit 2188

MI

*Mano Padmanabhan*  
10/20/03

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